



POLICY ISSUE

(Notation Vote)

August 24, 2023

SECY-23-0075

FOR: The Commissioners

FROM: Daniel H. Dorman
Executive Director for Operations

SUBJECT: WYOMING'S PROPOSAL TO AMEND THE EXISTING AGREEMENT TO REGULATE THE PROCESSING OF SOURCE MATERIAL TO EXTRACT MINERAL RESOURCES OTHER THAN THE URANIUM OR THORIUM CONTENT

PURPOSE:

The purpose of this paper is to obtain Commission approval on the State of Wyoming's (Wyoming's) proposal to amend the State's existing Agreement pursuant to Section 274b. of the Atomic Energy Act of 1954, as amended (AEA). The amended Agreement would authorize Wyoming to assume regulatory authority over source material recovered from any mineral resources processed primarily for purposes other than the uranium and thorium content.¹ The U.S. Nuclear Regulatory Commission (NRC) would continue regulatory authority over the remaining subcategories of source material, Section 11e.(1), (3) and (4) of the AEA categories of byproduct material, and all special nuclear material in Wyoming.

BACKGROUND:

The Commission approved the first Agreement covering a subcategory of source material in 2000. The State of Oklahoma (Oklahoma) filed a draft application for a Section 274b. Agreement requesting regulatory authority over byproduct, source, and special nuclear material less than critical mass in 1995. However, Oklahoma requested the exclusion of five major facilities undergoing decommissioning. Prior to this, no Section 274b. Agreement containing exclusions, for creating a subcategory of material, had ever been approved.² The NRC staff

CONTACT: Duncan White, NMSS/MSST
(301) 415-2598

¹ Wyoming's authorizing legislation for the proposed amended Agreement defines "mineral resources," for the purposes of the amended Agreement, as "any host rock, ore, material or waste associated with mining or milling that contains a recoverable mineral."

² At the time, the Commission retained authority over the Allied Chemical facility in Metropolis, IL because of common defense and security considerations.

recommended that the Commission deny Oklahoma's application while providing a general approach for handling requests for 274b. Agreements limited by a discrete subcategory of material. As stated in SECY-97-087, "Oklahoma Agreement State Negotiations: State Requests that Major Facilities Undergoing Site Decommissioning not be Relinquished to State" (Agencywide Documents Access and Management System Accession No. ML992930004):

Overall, the staff would consider whether the proposed Agreement would jeopardize "...an orderly regulatory pattern between the Commission and the State governments..." as indicated by Section 274a.(3) of the AEA. In particular, requests for limited Agreements would have to identify discrete categories of material or classes of licensed activity that (1) can be reserved to NRC authority without undue confusion to the regulated community or burden to NRC resources, and (2) can be applied logically, and consistently to existing and future licensees over time. Under this approach, NRC would not reserve authority over a single license unless that licensee clearly constituted a single class of activity or category of material meeting the two criteria described above.

In SRM-SECY-97-087 (ML003752408), the Commission approved the staff's general approach for handling requests for Agreements with subcategories of material. The Commission directed that the NRC staff "should consult with the Commission prior to the formulation of final Agreements in instances where there was not a clear precedent for the action."

Subsequently, in SECY-99-123, "Oklahoma Agreement State Negotiations: State Proposal to Limit Scope of Agreement" (ML20195E609), the NRC staff provided an analysis of Oklahoma's request for an Agreement based on the SECY-97-087 criteria. This analysis concluded that the creation of a subcategory of material could be transferred to State authority without undue confusion to the licensed community and could be applied logically and consistently to existing and future regulatory actions. In 1999, the Commission reviewed the analysis and approved the staff's proposal to enter into an Agreement with the State of Oklahoma that included a subcategory of source material (ML003752047). Ultimately, in 2000, the NRC and Oklahoma entered into the limited Agreement where the NRC retained regulatory authority over all other source material in the State, which included the five major facilities undergoing decommissioning that Oklahoma requested to explicitly exclude from its 274b. Agreement.

In 2018, the NRC and Wyoming entered into the existing Agreement for Wyoming to assume regulatory authority over (1) a subcategory of source material involved in the extraction or concentration of uranium or thorium in source material or ores at uranium or thorium milling facilities, and (2) the management and disposal of byproduct material as defined in Section 11e.(2) of the AEA.³

The 2018 Agreement was limited to a subcategory of source material because Wyoming's request was limited to possession and use of source material involved in the extraction and concentration of uranium and thorium in source material and ores at milling facilities, and the management and disposal of byproduct material as defined in Section 11e.(2) of the AEA. NRC staff requested Commission approval for this subcategory in SECY-16-0084 "Wyoming's Proposal for a Limited Agreement to Only Regulate Milling Facilities Source Material and

³ Under the existing Agreement, the NRC retained jurisdiction over one uranium mill site undergoing decommissioning, American Nuclear Corporation (ANC). In SRM-SECY-17-0081, the Commission approved the staff's recommendation for the NRC to retain regulatory authority over the ANC site (ML17277A783).

11e.(2) Byproduct Material" (ML16089A241). The Commission approved the creation of the source material subcategory specific to the Wyoming Agreement in SRM-SECY-16-0084 (ML16216A534).

In the fall of 2022, Wyoming initiated activities to develop legislation to authorize the request to expand Wyoming's regulatory authority under the existing Agreement issued pursuant to Section 274b. of the AEA. That legislation was approved by Wyoming on February 21, 2023.⁴ Subsequently, on the same day, Wyoming submitted a letter to Chair Hanson, from Governor Mark Gordon of Wyoming stating that Wyoming intends to pursue an amendment to its Agreement with the NRC "to include regulation of source material recovered from any mineral resources processed primarily for purposes other than obtaining the source material content" (ML23080A140).

DISCUSSION:

Currently, the staff continues to engage with Wyoming as they develop their application for an amended Agreement. Consistent with the general approach for handling requests for Agreements with subcategories of material approved by the Commission in SRM-SECY-97-087, the staff is seeking the Commission's approval to pursue an amendment to Wyoming's 274b. Agreement to regulate a second subcategory of source material. The State of Wyoming's proposed approach would amend their Agreement to regulate source material recovered from any mineral resources processed primarily for purposes other than the uranium or thorium content. Those licensed facilities would process a mineral resource including raw (unprocessed) material or already processed material where source material is also present to extract the minerals present (e.g., rare earths and other critical minerals).

Specifically, the February 2023 Wyoming legislation defines this subcategory of source material as "Source material involved in the extraction and concentration of mineral resources for purposes other than obtaining the uranium and thorium content." The language describes the regulatory areas where Wyoming would assume authority and responsibility. Additionally, consistent with the existing Agreement, the NRC would retain authority over commercial laboratory facilities not located at facilities licensed under the authority relinquished to the State.

There is one licensed facility in Wyoming that extracts rare earths from mineral resources containing source material and would be the only facility meeting this proposed subcategory. This license would be transferred to Wyoming if NRC enters into the proposed amended Agreement. At this time, there are no other licensees that would fall in the source material subcategory requested by Wyoming. Any similar license applications would be reviewed by Wyoming if the Agreement is amended.

Analysis of Wyoming's Proposal

The following is an analysis of Wyoming's proposed approach using the evaluation criteria set forth in SECY-97-087 (ML992930004) and then approved by the Commission in SRM-SECY-97-87 (ML003752408) from the Oklahoma Agreement Commission paper. These

⁴ The Wyoming legislation can be found here: <https://wyoleg.gov/Legislation/2023/HB0061>.

criteria support the consideration of whether the proposed Agreement would jeopardize “an orderly regulatory pattern between the Commission and the State governments” as indicated by Section 274a.(3) of the AEA.⁵

- (1) The proposal identifies discrete categories of material or classes of licensed activity that can be reserved to NRC authority without undue confusion to the regulated community or burden to NRC resources.

The Wyoming proposal delineates a clear, discrete subcategory of source material that would be regulated by the State. The NRC would continue to regulate the remaining subcategories of source material not covered by this proposal or the 2018 Agreement (e.g., source material in commercial or academic labs). The proposed amended Agreement would expand Wyoming’s regulatory authority to license the possession and use of source material involved in the extraction and concentration of mineral resources not for its uranium and thorium content. This delineates a clear, discrete class of licensed activities involving the extraction of rare earths and other minerals that would be regulated by Wyoming. The NRC would retain regulatory authority over the remaining source material, 11e.(1), (3) and (4) byproduct material, and any licenses for special nuclear material. For example, source material used for depleted uranium shielding in radiographic exposure devices would remain under NRC jurisdiction. Tying the definition of this proposed subcategory of source material to its involvement with mineral resource extraction creates an easy-to-understand subcategory of source material for the regulated community and clearly delineates who has regulatory authority. Therefore, the implementation of the second source material subcategory should not create confusion for the regulated community or be a burden on NRC resources.

- (2) The proposal can be applied logically, and consistently to existing and future licensees over time.

Wyoming’s proposal to expand its authority to regulate source material processed incidental to the extraction of rare earths and other minerals presents a clear, narrowly defined subcategory of material. The scope of the activity and radioactive material involved in Wyoming’s proposal is well understood by industry and potential applicants. The extraction and processing of rare earth and other minerals has been and is currently conducted in Wyoming and other jurisdictions⁶. As such, the staff concluded that the proposal can be applied logically and consistently to existing and future mineral processing licensees.

Given that the two evaluation criteria above support Wyoming’s proposal, staff concludes that, the proposal would not jeopardize but promote an orderly regulatory pattern between the Commission and State government with respect to the use and regulation of byproduct, source, and special nuclear material in accordance with Section 274a.(3) of the AEA.

⁵ Note that this paper is organized slightly differently from previous SECY papers analyzing Wyoming’s and Oklahoma’s proposals for Agreements limited by a discrete subcategory of material. See SECY-16-0084 ((ML16089A241) and SECY-99-123 (ML20195E609)). In these previous SECY papers, the staff organized its analysis under four factors. Here, the staff addressed all four factors, but has organized its analysis slightly differently because Wyoming’s current proposal is smaller in scope compared to the previous analyses.

⁶ The State of Nevada issued a source material license in 2021 to a facility extracting vanadium for commercial use.

RESOURCE AND POLICY IMPLICATIONS

The staff has also examined the resource and policy impacts of the Wyoming proposal. The staff expects that the resource implications of the Proposed Wyoming Agreement Amendment would be minimal. The staff has not identified any significant policy implications at this time. Once Wyoming submits its full application for an amended Agreement, the staff will include a full discussion on the resource implications as well as any policy implications in the Commission paper containing the Proposed Staff Assessment, *Federal Register* Notice, and Proposed Agreement language.

Staff will propose language for the Wyoming amended Agreement for the Commission's consideration along with the Proposed Staff Assessment of the State's application for amended Agreement.

CONCLUSION:

Based on the above analysis, the staff concludes that Wyoming's proposal for a second source material subcategory is consistent with the AEA and the criteria in SECY-97-087. The proposal identifies a clear subcategory of material or class of licensed activity that could be transferred to State authority without undue confusion to the regulated community and could be applied logically and consistently to existing and future licenses over time.

RECOMMENDATION:

The Commission approve Wyoming's proposed approach for a limited Agreement to assume regulatory authority over a second subcategory of source material recovered from any mineral resources processed primarily for purposes other than its uranium or thorium content. If the Commission approves Wyoming's proposal, the staff will continue their evaluation of Wyoming's amendment application efforts and appropriately engage the Commission throughout this process.

COORDINATION:

The Office of the General Counsel has no legal objections with the staff's recommended approach.

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